# Washington State House of Representatives Office of Program Research

BILL ANALYSIS

## **Education Committee**

## **HB 2621**

**Brief Description**: Designating resource programs for science, technology, engineering, and mathematics instruction in K-12 schools.

**Sponsors**: Representatives Orwall, Maxwell, Darneille, Morrell and Haigh.

#### **Brief Summary of Bill**

- Directs the Superintendent of Public Instruction to designate up to three high schools to serve as "lighthouses" that offer technical assistance and advice to school districts and communities regarding best practices in science, technology, engineering, and mathematics (STEM) instruction.
- Requires the designated districts to have proven experience and be recognized as offering model programs in STEM instruction.

Hearing Date: 1/20/10

Staff: Barbara McLain (786-7383).

#### Background:

It is regularly reported in the media and in state and national studies that K-12 students in the United States are not adequately prepared in the academic disciplines of science, technology, engineering, and mathematics (STEM). In Washington, the Legislature has directed a number of activities in recent years intended to enhance STEM teaching and learning, such as revising the state mathematics and science standards, identifying recommended curricula, providing professional development to support the revised standards, increasing the high school graduation requirement in mathematics, and providing support for STEM learning activities such as FIRST Robotics and LASER.

There are also examples of locally initiated programs to provide enhanced learning opportunities for students in STEM, including at least three high schools geared to a STEM theme:

• Aviation High School (Highline School District);

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House Bill Analysis - 1 - HB 2621

- Delta High School (partnership of Kennewick, Pasco, Richland School Districts, Columbia Basin College, WSU Tri-Cities, and Battelle); and
- Science and Math Institute at Point Defiance (Tacoma School District).

While each of these high schools is different, they share some common attributes, such as:

- offering a small, personalized learning community for students;
- focusing on interdisciplinary instruction in STEM subjects;
- relying on a project-based curriculum with hands-on and applied learning opportunities;
   and
- creating partnerships with local communities and STEM businesses to connect learning beyond the classroom.

### **Summary of Bill**:

If funds are appropriated for this purpose, the Superintendent of Public Instruction (SPI) designates up to three high schools to serve as resources and examples of how to combine the following best practices:

- a small, highly personalized learning community;
- an interdisciplinary curriculum with strong focus on science, technology, engineering, and mathematics (STEM), delivered through a project-based instructional approach; and
- active partnerships with businesses and the local community.

The designated high schools serve as "lighthouses" to provide technical assistance and advice to other schools and communities who are in the initial stages of creating a STEM learning environment. They must have proven experience and be recognized as model programs. The Office of the SPI works with the designated high schools to publicize their models of STEM instruction and encourage other high schools and communities to replicate similar models.

**Appropriation**: None.

Fiscal Note: Requested on 1/13

**Effective Date**: The bill takes effect 90 days after adjournment of the session in which the bill is passed.